CLAIMS

1. Apparatus for the treatment of cancer or a precancerous state, which apparatus comprises a therapeutic light source, characterised in that said source (2) is designed to emit a therapeutic light beam having a wavelength between 1.2 μm and 1.3 μm.

2. Apparatus according to claim 1, characterised in that said source (2) is designed to emit a pulsed therapeutic light beam.

3. Apparatus according to claim 2, characterised in that the time of each pulse is adjustable.

4. Apparatus according to claim 2, characterised in that the time of each pulse can be set to a value less than 0.5 s, and preferably to a value between at least 0.1 s and 0.3 s.

5. Apparatus according to claim 2, characterised in that the time interval between two pulses is adjustable.

6. Apparatus according to claim 5, characterised in that the time interval between two pulses can be set to a value greater than 0.5 s, and preferably to a value greater than or equal to 0.9 s.

7. Apparatus according to one of claims 1 to 6, characterised in that the time of emission or the number of pulses in each emission of the therapeutic light beam is adjustable.

8. Apparatus according to claim 2 and claim 7, characterised in that the number of pulses in each emission can be set to at least between 50 and 300.

9. Apparatus according to one of claims 1 to 8, characterised in that the power of the therapeutic light beam is adjustable.

10. Apparatus according to claim 9, characterised in that the power of the therapeutic light beam can be set to at least between 1 W and 5 W.

11. Apparatus according to claims 2 and 9, characterised in that the power density of the pulses can be set to at least between 30 W/cm^2 and 300 W/cm^2.

12. Apparatus according to one of claims 1 to 11, characterised in that the source (2) is a laser source.

13. Apparatus according to claim 12, characterised in that the laser source (2) comprises a Raman fiber laser.

14. Apparatus according to claim 13, characterised in that the Raman fiber laser includes a pump laser diode (201), an ytterbium-doped fiber laser (202), and a Raman converter (204) that is intended to transpose the wavelength of the beam generated by the ytterbium-doped fiber laser.

15. Method for treating cancer or a precancerous state, characterised in that the site to be treated is illuminated with a therapeutic light beam having a wavelength between 1.2 μm and 1.3 μm.

16. Treatment method according to claim 15, characterised in that the therapeutic light beam is a laser beam.

17. Treatment method according to claim 15 or 16, characterised in that the therapeutic light beam is pulsed.

18. Treatment method according to claim 17, characterised in that the pulse fluence is between 1 J/cm^2 and 30 J/cm^2.

19. Treatment method according to claim 17 or 18, characterised in that the time (T) between two successive pulses is greater than 0.5 s.

20. Treatment method according to claim 17 or 18, characterised in that the time (T) between two successive pulses is greater than or equal to 0.9 s.

21. Treatment method according to one of claims 17 to 20, characterised in that the number of pulses (N) in each emission is between 50 and 300 pulses.

22. Treatment method according to one of claims 17 to 21, characterised in that the time (t) of each pulse is less than 0.5 s.

23. Treatment method according to one of claims 17 to 21, characterised in that the time (t) of each pulse is between 0.1 s and 0.3 s.

24. Treatment method according to one of claims 15 to 23, characterised in that the power density (d) of the therapeutic light beam at the level of the site to be treated is between 30 W/cm^2 and 300 W/cm^2.

25. Treatment method according to one of claims 15 to 23, characterised in that the power density (d) of the therapeutic light beam at the level of the site to be treated is substantially equal to 100 W/cm^2.

26. Treatment method according to one of claims 15 to 25, characterised in that the total fluence for each emission is between 6000 J/cm^2 and 90,000 J/cm^2.

27. Treatment method according to one of claims 15 to 25, characterised in that the total fluence for each emission is substantially equal 30,000 J/cm^2.

28. Treatment method according to one of claims 15 to 27, characterised in that the operation of lighting the site to be treated is repeated a number of times, with at least one day of rest between each lighting operation.

29. Treatment method according to one of claims 15 to 28, characterised in that a photosensitising drug is not administered to the patient.

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